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Ohio State Engineer

Title: Plywood Has Gone to War

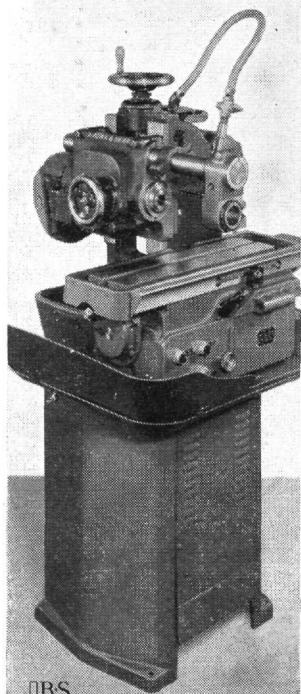
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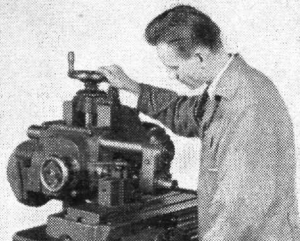
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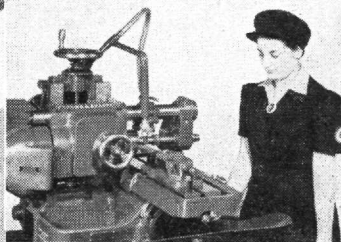
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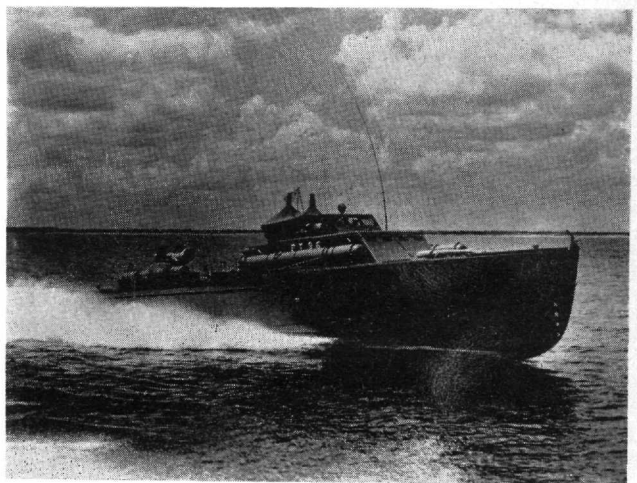
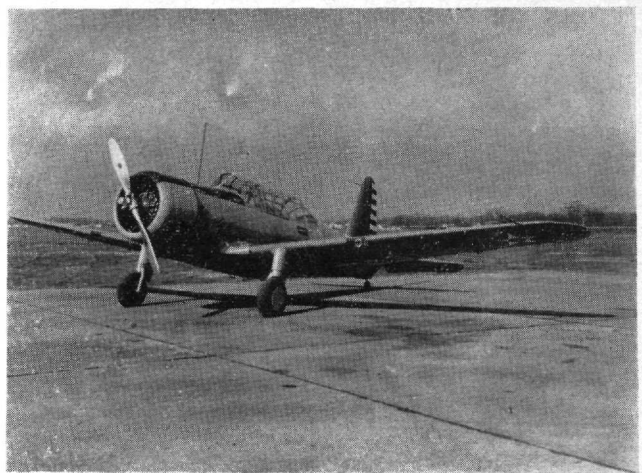
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PLYWOOD HAS GONE TO WAR

STEPPING out from its most publicly known use as material used in domestic articles such as kitchen cabinet doors, chicken coops, and furniture, plywood has found its place at the battle front, whether the activity is in the air, on water, or on land. The development of better and stronger resin adhesives that withstand weather and fungus, has made it possible for plywood to be used in construction of airplanes, ships, buildings and even such apparatus as portable refrigerators and huge gasoline tanks that can be floated ashore during invasion operations.

Today plywood is, pound for pound, stronger than steel; it is waterproof, heat proof, oil-proof, and highly resistant to mold and fungus. Although it has demanded recognition only in the past few years, perfectly preserved specimens of plywood furniture made 1,500 years before the birth of Christ have been found in the tombs of Pharaohs; during World War I it was the basic material used in the exterior construction of aircraft. It was then relegated for years to the manufacture of doors, cabinets, and panelings, until scientists designed very satisfactory methods of bonding together the thin sheets of wood to give maximum service in strength, usefulness, and economy.



—Courtesy United States Plywood Corporation.

These War Weapons Are Made of the Plywood Stronger Than Steel

During this war, plywood is on hand at every battle front, doing its part in the war effort. Ponton bridges are plywood life boats fastened together with plywood treadways glued to the framework. From PT torpedo boats to tiny 12-man assault boats, plywood is the essential construction element. The decks and sides of one type of barge are constructed of two thicknesses of $\frac{5}{8}$ inch plywood. This makes it possible to lighten the weight of war supplies where every pound counts. Light-weight life boats aboard freighters are being mass-produced, formed of 2 thicknesses of $\frac{1}{4}$ inch panels. They are $\frac{1}{3}$ lighter and considerably stronger than any previously built. Barracks, railroad cars, plants of war industries, and buildings needed immediately to house defense workers are rushed to sturdy completion through the use of plywood.

We shall hear more of plywood as the months pass. As plywood is serving today in innumerable ways to promote the war effort and scientists are designing uses for it in post war reconstruction.



Your Tomorrow Began Yesterday

Yesterday someone did something that will make tomorrow better.

We do not mean to be Pollyanna. We are totally engaged in the grim business of producing for war. But it is still hard, realistic fact that the good things of tomorrow are being planned today, were planned yesterday. Jobs, for instance. Your future job.

This is one reason why we enjoy working with aluminum. It's full of possibilities for making new things, and making old things better. The future of aluminum is exciting.

There is now much more aluminum and it costs less. It will be usable in many more places. Alcoa has been imagineering in aluminum for 54 years and we have good reason to feel the postwar future of aluminum is something for a man to want to have a part of.

Look what aluminum can do to help patch up this shattered old world. It's the wings of the Air Age. It is going to tie

remote peoples together and help bring about understanding.

Aluminum's strength with light weight makes things easier to lift, less expensive to move. It offers another spurt of growth to all forms of transportation.

Alcoa Alloys in brilliant colors promise a new splurge for beauty. Think what you can do to brighten homes and hospitals, stores and schools with a metal that is easy to work, resistant to corrosion, light, strong and capable of being dyed practically any color of the rainbow!

We have seen a lot of good imagination engineered into plans utilizing Alcoa Alloys. We have done some Imagineering of our own, too.

These plans are today's blue-prints for tomorrow's jobs. Many of you younger men will be needed to turn them into action. In fact, we hope some of you will want to help put across the ideas we have been cooking up here at Alcoa.



A PARENTHETICAL ASIDE: FROM THE AUTOBIOGRAPHY OF **ALCOA ALUMINUM**

• This message is printed by Aluminum Company of America to help people to understand *what we do* and *what sort of men* make aluminum grow in usefulness.